



RECEIVED

AUG 1 2 2002

TECH CENTER 1600 2490 1 of 17

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
CES	AA1	3,130,055	04/21/1964	Segel, et al.	99	48	10/30/1962
	AB1	3,733,205	05/15/1973	Shovers, et al.	99	48	08/07/1970
	AC1	3,770,453	11/06/1973	Dadic et al.	426	227	04/22/1971
	AD1	4,110,480	08/29/1978	Pollock et al.	426	436	07/23/1975
	AE1	4,387,162	06/07/1983	Aigle et al.	435	172	11/14/1979
	AF1	4,414,334	11/08/1983	Hitzman	435	262	08/07/1981
	AG1	4,708,875	11/24/1987	Godtfredsen, et al.	426	12	03/15/1982
	AH1	4,790,993	12/13/1988	Schedl et al.	426	13	02/13/1987
	AI1	4,867,990	09/19/1989	Suwa et al.	426	8	08/16/1988
	AJ1	4,911,936	03/27/1990	Kijima et al.	426	62	03/18/1988
CES	AK1	4,957,749	09/18/1990	Prieels et al.	426	10	05/14/1986

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
CES	AL1	✓ GB 5673	02/21/1891	Great Britain			Yes No
	AM1	✓ EP 0 207 039 A1	12/30/1986	Europe			Yes X No
	AN1	✓ JP 2-46285	02/15/1990	Japan			Yes X No
	AO1	✓ JP 3-65173	03/20/1991	Japan			Yes X No
CES	AP1	✓ EP 0 547 876 A1	06/23/1993	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CES	AR	1	✓	Abramovitz, A.S., and Massey, V., "Purification of Intact Old Yellow Enzyme Using an Affinity Matrix for the Sole Chromatographic Step," J. Biol. Chem. 251:5321-5326, American Society of Biological Chemists, Inc. (1976).			
	AS	1	✓	Amore, R., et al., "Cloning and expression in <i>Saccharomyces cerevisiae</i> of the NAD(P)H-dependent xylose reductase-encoding gene (XYL1) from the xylose-assimilating yeast <i>Pichia stipitis</i> ," Gene 109:89-97, Elsevier Science B.V. (1991).			
CES	AT	1	✓	Baker, D.L., and Stollberg, H., "The Relation between Yeast Strain and Flavor Stability of Beer," <i>The Brewers Digest</i> 34:46-47, Siebel Publishing Co. (1959).			

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

AUG 12 2004

TECH CENTER 1600/2004

Page 2 of 17

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
CES	AA2	5,010,007	04/23/1991	Prieels et al.	435	190	03/12/1990
	AB2	5,043,276	08/27/1991	Yamano et al.	435	161	04/20/1989
	AC2	5,055,401	10/08/1991	Liljeström et al.	435	172.3	04/10/1987
	AD2	5,298,264	03/29/1994	Edens et al.	426	8	12/13/1991
	AE2	5,460,836	10/24/1995	Ono et al.	426	11	08/04/1993
	AF2	5,512,472	04/30/1996	Lai et al.	435	240.1	05/11/1995
	AG2	6,207,208 B1	03/27/2001	Irwin et al.	426	330.4	07/06/1998
	AH2	6,326,184 B1	12/04/2001	Gjermansen et al.	435	254.2	09/15/1998
CES	AI2	6,372,269 B1	04/16/2002	Rangel-Aldao et al.	426	62	09/09/1998
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
CES	AL2	FR 2 688 228	09/10/1993	France			Yes X No
	AM2	EP 0 773 285 A2	05/14/1997	Europe			Yes No
	AN2	EP 0 832 974 A2	04/01/1998	Europe			Yes No
CES	AO2	EP 0 924 294 A2	06/23/1999	Europe			Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CES	AR	2	✓	Bravo, A., et al., "Capillary electrophoresis for studying beer aging," IBTC Technical Consortium Meeting #35, Salzburg, Austria, unpublished abstract of poster presentation (1993).			
	AS	2	✓	Bravo, A., et al., "Use of HPLC and CE to detect chemical indices of beer aging," IBTC Technical Consortium Meeting #36, Caracas, Venezuela, unpublished abstract of poster presentation (1994).			
CES	AT	2	✓	Bravo, A., et al., "63. Highly sensitive chemical indices of beer aging," in: Proceedings of the 28 <sup>th</sup> EBC Congress Budapest 2001 on CD-ROM, Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).			

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

AUG 1 2 2002

Page 3 of 17

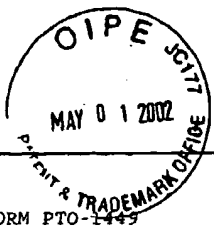
FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	TEC. 1600/2900 APPL. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
CES	AR	3	Bravo, A., et al., "64. Identification of $\alpha$ -dicarbonylic compounds in aged beers: their role in beer aging process," in: <i>Proceedings of the 28<sup>th</sup> EBC Congress Budapest 2001 on CD-ROM</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).
1	AS	3	Bravo, A., et al., "The Blockage of Maillard Reaction Intermediates Prevents the Formation of Flavor Notes During Beer Aging," in: <i>Monograph 31: Flavor and Flavor Stability Symposium of the EBC, October 2001</i> , Fachverlag Hans Carl, Nürnberg, Germany, 9 pages (In Press).
CES	AT	3	Collin, S., et al., "Yeast dehydrogenase activities in relation to carbonyl compounds removal from wort and beer," <i>Proc. Cong. Eur. Brew. Conv.</i> 23:409-416, Oxford University Press (1991).

EXAMINER <u>C. Sherrer</u>	DATE CONSIDERED <u>7/2/04</u>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



RECEIVED

AUG 12 2002

TECH CENTER 1600/2500/2500/2500/2500

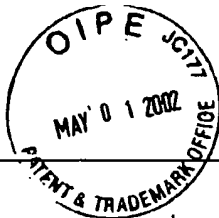
FORM PTO-1449 <b>INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
CES	AR	4 ✓	Dalglish, C.E., "Flavour Stability," Proc. Cong. Eur. Brew. Conv. (16 <sup>th</sup> Cong.), pp. 623-659, Oxford University Press (1977).
1	AS	4 ✓	Debourg, A., et al., "The specific role and interaction of yeast enzymatic systems in the removal of flavour-potent wort carbonyls during fermentation," Proc. Cong. Eur. Brew. Conv. (24 <sup>th</sup> Cong.), pp.437-444, Oxford University Press (1993).
CES	AT	4 ✓	Debourg, A., et al., "Wort Aldehyde Reduction Potential in Free and Immobilized Yeast Systems," J. Am. Soc. Brew. Chem. 52:100-106, American Society of Brewing Chemists, Inc. (1994).

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



RECEIVED

AUG 12 2002

TECH CENTER 1600/2008 Page 5 of 17

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1390.0070006/JAG/BJDAPPLICATION NO.  
10/055,430APPLICANT  
Rangel-Aldao et al.FILING DATE  
January 25, 2002GROUP  
To Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CES	AR	5 ✓	Greenhoff, K. and Wheeler, R.E., "Analysis of Beer Carbonyls at the Part Per Billion Level by Combined Liquid Chromatography and High Pressure Liquid Chromatography," J. Inst. Brew. 87:35-41, Harrison & Sons (1981).
1	AS	5 ✓	Grönqvist, A., et al., "Carbonyl compounds during beer production and in beer," Proc. Cong. Eur. Brew. Conv. 24:421-428, Oxford University Press (1993).
CES	AT	5 ✓	Gupta, K.G., et al., "Removal of Diacetyl from Beer by Adsorbants and Diacetyl Reductase," Biotech. & Bioengin. 21:649-657, John Wiley & Sons, Inc. (1979).

EXAMINER C. Sherrer

DATE CONSIDERED 7/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

AUG 1 2002

TECH CENTER 10000000 of 17

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

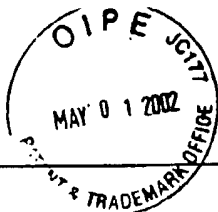
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CES	AR	6 ✓	Hansen, J., and Kielland-Brandt, M.C., "Inactivation of MET10 in brewer's yeast specifically increases SO <sub>2</sub> formation during beer production," <i>Nature Biotechnol.</i> 14:1587-1591, Nature Publishing Co. (November 1996).				
1	AS	6 ✓	Harayama, K., et al., "Evaluation by Multivariate Analysis of Off-flavor in Headspace Volatiles Formed during Storage of Beer," <i>Agric. Biol. Chem.</i> 55:393-398, Japan Society for Bioscience, Biotechnology, and Agrochemistry (1991).				
CES	AT	6 ✓	Hashimoto, N., "Amino-Carbonyl Reaction During Wort Boiling in Relation to Flavor Stability of Beer," <i>MBAA Tech. Quarterly</i> 11:121-126, Master Brewers Association of the Americas (1974).				

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



AUG 12 2007

TECH CENTER 1600/2000

Page 7 of 17

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
1390.0070006/JAG/BJDAPPLICATION NO.  
10/055,430APPLICANT  
Rangel-Aldao et al.FILING DATE  
January 25, 2002GROUP  
To Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CES	AR	2 ✓	Hashimoto, N., "Stale Flavor Derived from Higher Alcohols and Isohumulones in Beer," Rept. Res. Lab. Kirin Brewery Co., Ltd., 19:1-8, Kirin Brewery Co. (1976).
1	AS	1 ✓	Karplus, P.A., et al., "Structure-function relations for old yellow enzyme," FASEB J. 9:1518-1526, Federation of American Societies for Experimental Biology (December 1995).
CES	AT	2 ✓	Kronl6f, J., et al., "Main fermentation with immobilized yeast," Proc. Cong. Eur. Brew. Conv. 22:355-362, Oxford University Press (1989).

EXAMINER  
C. Sherrer

DATE CONSIDERED 7/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED  
AUG 18 2002  
TECH CENTER 1600/2900  
Page 8 of 17

FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
CES	AR	8 ✓	Liang, Z.-Q., et al., "Aldose Reductase from Porcine Liver Metabolizing 3-Deoxyglucosone, a Maillard Reaction Intermediate," <i>Biosci. Biotech. Biochem.</i> 56:1074-1078, Japan Society for Bioscience, Biotechnology, and Agrochemistry (1992).
1	AS	8 ✓	Lowry, O.H., et al., "Protein Measurement with the Folin Phenol Reagent," <i>J. Biol. Chem.</i> 193:265-275, Waverly Press, Inc. (1951).
CES	AT	8 ✓	Mathews, S., et al., "Chemical indices of food decomposition," <i>Trends Food Sci. &amp; Technol.</i> 1:89-91, Elsevier Science (1990).

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





RECEIVED

AUG 12 2002

Page 9 of 17

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1390.0070006/JAG/BJDTEST. ORDER 1600/2900  
APPLICANT  
10/055,430APPLICANT  
Rangel-Aldao et al.FILING DATE  
January 25, 2002GROUP  
To Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CES	AR	2 ✓	Meilgaard, M.C., "Flavor Chemistry of Beer: Part II: Flavor and Threshold of 239 Aroma Volatiles," MBAA Tech. Quarterly 12:151-168, Master Brewers Association of the Americas (1975).
1	AS	2 ✓	Miranda, M., et al., "Yeast Sequencing Reports. Nucleotide Sequence and Chromosomal Localization of the Gene Encoding the Old Yellow Enzyme from Kluyveromyces lactis," Yeast 11:459-465, John Wiley & Sons, Inc. (1995).
CES	AT	2 ✓	Miura, R., et al., "The Heterogeneity of Brewer's Yeast Old Yellow Enzyme," J. Biochem. 99:901-906, Japanese Biochemical Society (1986).

EXAMINER

C. Sherrer

DATE CONSIDERED 7/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

AUG 12 2002

TECH CENTER 1600/1600 Page 10 of 17

FORM PTO-1449 <b>INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CES	AR	16	✓	Murata, K., et al., "Metabolism of 2-oxoaldehyde in yeasts. Purification and characterization of NADPH-dependent methylglyoxal-reducing enzyme from <i>Saccharomyces cerevisiae</i> ," <i>Eur. J. Biochem.</i> 151:631-636, Springer-Verlag (1985).			
1	AS	10	✓	Murata, K., et al., "2-Oxoaldehyde metabolism in microorganisms," <i>Can. J. Microbiol.</i> 35:423-431, National Research Council of Canada (1989).			
CES	AT	10	✓	Narziß, L., et al., "Technological Approach to Improve Flavour Stability," <i>MBAA Tech. Quarterly</i> 30:48-53, Master Brewers Association of the Americas (1993).			

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



RECEIVED  
AUG 12 2002  
TECHNICAL 1600/244

Page 11 of 17

FORM PTO-1449 <b>INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
CES	AR	11	✓ Niino, Y.S., et al., "A New Old Yellow Enzyme of <i>Saccharomyces cerevisiae</i> ," J. Biol. Chem. 270:1983-1991, American Society for Biochemistry and Molecular Biology, Inc. (1995).
I	AS	11	✓ Peppard, T.L., and Halsey, S.A., "Malt Flavour - Transformation of Carbonyl Compounds by Yeast During Fermentation," J. Inst. Brew. 87:386-390, Harrison & Sons (1981).
CES	AT	11	✓ Rangel-Aldao, R., "South American starter cultures," Nature Biotechnol. 14:951-952, Nature Publishing Co. (August 1996).

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



AUG 12 2002

TECH CENTER 1600/2500

Page 12 of 17

FORM PTO-1449 <b>INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CES	AR	12 ✓	Rangel-Aldao, R., "Biotechnology for a better beer?" <i>Nature Biotechnol.</i> 14:1540-1541, Nature Publishing Co. (November 1996).
1	AS	12 ✓	Rangel-Aldao, R., et al., "61. A new technology for beer flavor stabilization: control of key intermediates of the Maillard reaction," in: <i>Proceedings of the 28<sup>th</sup> EBC Congress Budapest 2001 on CD-ROM</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).
CES	AT	12 ✓	Rangel-Aldao, R., et al., "Beer Flavor Stabilization Through the Control of Maillard Reaction Intermediates," in: <i>Monograph 31: Flavor and Flavor Stability Symposium of the EBC, October 2001</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-12 (In Press).

EXAMINER

C. Sherrer

DATE CONSIDERED

7/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



AUG 12 2002  
TECH CENTER 1000/2900

Page 13 of 17

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1390.0070006/JAG/BJD

APPLICATION NO.  
10/055,430

APPLICANT  
Rangel-Aldao et al.

FILING DATE  
January 25, 2002

GROUP  
To Be Assigned

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

CES	AR	13	Saito, K., et al., "The Cloning and Expression of a Gene Encoding Old Yellow Enzyme from <i>Saccharomyces carlsbergensis</i> ," <i>J. Biol. Chem.</i> 266:20720-20724, American Society for Biochemistry and Molecular Biology, Inc. (1991).
I	AS	13	Sánchez, B., et al., "48. Brewers' yeast oxidoreductase with activity on Maillard reaction intermediates of beer," in: <i>Proceedings of the 28<sup>th</sup> EBC Congress Budapest 2001 on CD-ROM</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-9 (May 2001).
CES	AT	13	Stott, K., et al., "Old Yellow Enzyme. The Discovery of Multiple Isozymes and a Family of related Proteins," <i>J. Biol. Chem.</i> 268:6097-6106, American Society for Biochemistry and Molecular Biology, Inc. (1993).

EXAMINER

C. Sherrer

DATE CONSIDERED

7/2/04

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



AUG 12 2007

TECH CENTER 1000/2300

Page 14 of 17

FORM PTO-1449 <b>INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CES	AR	14 /	Strating, J., and Drost, B.W., "Limits of Beer Flavour Analysis," Dev. Food Sci. 17:109-121, Elsevier Science B.V. (1987).
I	AS	14 /	Vehkomäki, M.-L., et al., "47. Development of brewers' yeast with increased carbonyl reducing activity," in: <i>Proceedings of the 28<sup>th</sup> EBC Congress Budapest 2001 on CD-ROM</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).
CES	AT	14 /	Watson, J.D., et al., "Using Yeast to Study Eukaryotic Gene Function," in: <i>Recombinant DNA, Second Edition</i> , Watson, J.D., et al., eds., Scientific American Books, New York, New York, pp. 235-253 (1992).

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
------------------------	---------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

AUG 12 2002

TJN CENTER 1600/2000 Page 15 of 17

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CES	AR	15	Weber, K., and Osborn, M., "The Reliability of Molecular Weight Determinations by Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis," J. Biol. Chem. 244:4406-4412, American Society of Biological Chemists, Inc. (1969).				
1	AS	15	Zhao, X., et al., "Oestrogen-binding protein in Candida albicans: antibody development and cellular localization by electron immunocytochemistry," Microbiology 141:2685-2692, Society for General Microbiology (1995).				
CES	AT	15	European Search Report for European Patent Application No. EP 96 30 7761, completed November 19, 1998.				

EXAMINER C. Sherrer	DATE CONSIDERED 7/2/04
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

AUG 1 2 2002  
TECH CENTER 1600/2900

AUG - 2 2002

TECH CENTER 1600/2900

Page 16 of 17



FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1390.0070006/JAG/BJD

APPLICATION NO.  
10/055,430

APPLICANT  
Rangel-Aldao et al.

FILING DATE  
January 25, 2002

GROUP  
To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

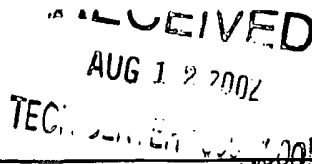
CES	AR	16 ✓	European Search Report for European Patent Application No. EP 98 30 7295, completed July 29, 1999.
1	AS	16 ✓	Dialog File 351 (Derwents World Patents Index), English language abstract for European Patent Office Publication No. EP 0 207 039 (Document AM1), WPI Accession No. 86-341313/198652.
CES	AT	16 ✓	Dialog File 351 (Derwents World Patents Index), English language abstract for French Patent No. FR 2 688 228 (Document AL2), WPI Accession No. 93-303468/199338.

EXAMINER *C. Sherrer*

DATE CONSIDERED *7/2/04*

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1390.0070006/JAG/BJD

APPLICATION NO.  
10/055,430

APPLICANT  
Rangel-Aldao et al.

FILING DATE  
January 25, 2002

GROUP  
To Be Assigned

## U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

**EXAMINER**

C. Sherrer

DATE CONSIDERED

7/2/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.